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THE BREEDING BIRDS OF SOUTHERN CENTER
COUNTY, PENNSYLVANIA.

BY RICHARD C. HARLOW.

THE object of the present paper is to set forth in a systematic way, the results achieved by the author during four years of systematic ornithological investigation in southern Center County, Pennsylvania. The period covered by the observations is from September 1, 1908, to May 20, 1912, with the exception of the summers of 1909 and 1910, when field work stopped about June 10. Observations were made in eastern Ferguson township; Patton township, southeast of Buffalo Run; College township, and the western and southern parts of Harris township. A few records are included in this paper which are based on data collected in parts of Jackson and Brown townships, Huntington County, near the Center County line, which seems legitimate since the physiography of the adjoining parts of the two counties is essentially the same and moreover, all the species nesting in this part of Huntington County, with one exception, have been found in the adjacent regions of Center County.

So far as identification of species and authenticity of the records are concerned it has been the policy of the author to include no record of which there is the slightest doubt, as misleading statements and erroneous identification are all too common at the present time. A hypothetical list is given where are placed various species whose status is not beyond question and other species, not found as yet, but whose occurrence as breeders is to be hoped for in this locality. The data gathered represent the work of a vast number of field trips during the last four breeding seasons. Certain regions, especially Stone Valley, Huntington County; Tussey Valley, Center County; and all of College township, Nittany Valley have been studied quite extensively and the list for these localities is probably nearly complete.

Up to the present time there has been very little published on the birds of this section, and that little has undoubtedly been misleading to a certain extent. A previous paper on this subject

contains many errors and statements that will not stand the test of true scientific questioning, although all credit is due its author and much of his work is of great value. Mr. W. E. C. Todd of Pittsburg made a number of observations here about 1895, but with the exception of Mr. Todd and Mr. Musgrave, practically no ornithological work has been done in this region until Mr. Foster White and the author began their studies in 1908. The previous lack of data, in many respects made the work all the more pleasing for every observation was of value.

According to Bulletin No. 10 of the Bureau of Biological Survey, U. S. Department of Agriculture, all of Center County lies in the Alleghanian faunal area of the Transition Zone. However, since that time, Mr. Samuel N. Rhoads in his "Mammals of Pennsylvania and New Jersey" includes all of Center County northwest of the Bald Eagle range, in the Canadian Zone, and all southwest of this range in the Alleghanian. The truth would seem to lie between the two, and the author believes that here as in other sections of the Pennsylvania mountains where primeval conditions are rapidly changing, we find a remarkable overlapping of faunas. It is essentially a region of unexpected realities and unrealized expectancies, where Canadian and Carolinian species nest side by side. Here we find the Tufted Tit summering in the same ravine as the Magnolia Warbler while even more striking is the sight of the Acadian Flycatcher and the Canadian Warbler feeding their young in neighboring bushes. Southwest of the main ridge of the Alleghanies, Stone Valley, Huntingdon County, and Bear Meadows, Center County seem to approach nearest to the typical Canadian Life Zone, but even in these places many boreal species are lacking and many austral species are present to disprove this statement.

Center County occupies the very center of the state of Pennsylvania, the 'Keystone of the Keystone' as it were, and stretches away like an irregular lozenge with the oblong ends pointing northeast and southwest. It is bounded on the northwest by Clearfield County; on the northeast by Clinton, Union and Snyder; on the south by Huntingdon and by Blair on the southwest. Its area is 1230 square miles, thus making it the largest county in the state. The Bald Eagle Mountains divide the county nearly in half; to the northwest, stretches the main ridge of the Alleghanies; to the

southwest the country is rolling and mountainous with several broad valleys. Most of the appended data was collected in the Nittany Valley and along the Huntington County line. This region is remarkable for its lack of large bodies of water, and this feature accounts to a great extent for the few water birds which nest here and also for the fact that the bird life is most abundant in the valleys along the mountain streams. A detailed account of several places which have been marked by certain types of bird life follows so that the reader may better understand the various allusions to these localities.

Some two miles to the west of State College we find the "Barrens" a peculiar tract of land with sandy soil and underground drainage. The original stands of lumber were cut years ago and repeated fires have kept down reproduction so that now we find a tract, miles in extent with a dense second growth of scrub oak, white oak, pitch pine and quaking aspen. Here and there we see scattered patches of woodland but the region is featured by its dense undergrowth and lack of large timber.

About one mile to the northeast of State College, Thompson's spring gives rise to a creek, locally known as Sand Run. Just below Center Furnace this creek is bordered on the southeast by a marsh, several acres in extent. A luxuriant growth of marsh grasses, marsh marigold and reeds, along with a few bushes and cat-tails, make the location a paradise for swamp-loving birds. The water varies from one to twenty-four inches in depth with an average of perhaps four inches.

Between the first and second ridges of the Seven Mountains, lies the narrow first valley with its streams bordered by masses of rhododendrons and a few scattering hemlocks, mute witnesses of the greed of the lumberman. Farther up on the ridges we find groves of pitch pine and Table Mountain pine, chestnut oak and red oak.

Farther back in the mountains between the third and fourth ridges lies the section known as Bear Meadows with an altitude of 2200 feet. Here pitcher-plants, sundews and cranberries grow in profusion while the black spruce and balsam recall at once the northern bogs. The undergrowth consists of an almost impenetrable jungle of rhododendron, and here yet linger the bear, the deer, and the porcupine, secure in their mountain retreat.

Farther down the valley and across the line in Huntingdon County we find the section known as Stone Valley. The population is sparse and many of the residents consider it an event of their lives to visit State College, only eleven miles away. Here Laurel run wends its way through dense rhododendron thickets with a scattering shade of hemlock, mostly second growth, black birch and yellow birch. Several slashings occur along the old lumber roads where the undergrowth is almost impenetrable and where we find occasional giant dead hemlocks still standing, spurned by the axeman on account of some defect.

The typical woodlot of the region is composed of black and scarlet oaks, shagbark and white hickory, pitch pine and white oak. Several stands of white pine occur, but mostly as second growth.

It is the desire of the author to express his thanks especially to Mr. Foster White, to whose conscientious and indefatigable labors much of the success of these investigations is due. Mr. David Harrower has also given me free access to his notes on the birds of this region, many of which are of great value. Thanks are also due to Messrs. Douglass Spencer, Herbert Mathers and Frank Craighead for valuable assistance, and lastly, the author wishes to thank Professor W. R. McConnell of the Department of Zoology of State College for the assistance and encouragement he has always so willingly tendered.

The list of breeding birds of southern Center County follows.

1. ***Butorides virescens virescens***. GREEN HERON.—Regular and fairly common summer resident in suitable locations. Prefers small groves or orchards in the vicinity of water and usually nests in the highest branches. Have examined two nests in this vicinity. The first was found May 22, 1909, and was built 25 feet up in the top of an apple tree in an orchard. It contained five fresh eggs. The second nest was found after the young had flown and was 30 feet up in a box elder, in an open grove along a stream. Both were near Thompson's spring.

2. ***Rallus virginianus***. VIRGINIA RAIL.—Regular and common summer resident in the swamps at Center Furnace and probably elsewhere. In 1909 three sets of ten eggs each were collected here on June 7. One set was fresh and the others far incubated. In 1910 the birds were present but no extended search was made for their nests and in 1911 one set was found at the same place and one set of 10 eggs was taken May 28, 1912. They choose the drier parts of the marsh in which to nest while the Sora

Rail usually builds over deeper water. Sets are usually complete by June 1, and the female commences incubation with the first egg laid.

3. **Porzana carolina.** SORA.—Regular and apparently more common summer resident than the Virginia Rail, in the same swamp. The Sora Rail usually builds several nests which are either used as shams or abandoned before the eggs are laid. The following occupied nests have been found.

June 7, 1909. Ten fresh eggs.

June 7, 1909. One fresh egg.

June 7, 1909. Six hatching eggs, three newly hatched Rails.

June 6, 1910. Eleven far incubated eggs.

June 6, 1910. Nine far incubated eggs.

May 28, 1912. Twelve fresh eggs.

In 1911 the birds were seen in their usual numbers but no search was made for their nests.

4. **Philohela minor.** WOODCOCK.—Regular and fairly common summer resident in the swampy bottomlands in the mountains. Has been noted throughout every breeding season in the vicinity of Stone Valley and Bear Meadows. April 29, 1911, Mr. White and I observed four male Woodcocks giving their aerial flight song in the twilight near Stone Valley. The locality was in the bottom-lands of Laurel Run which are largely covered with second growth. Mr. Douglas Spencer found a female with four newly hatched young in this vicinity, May 15, 1911.

5. **Actitis macularia.** SPOTTED SANDPIPER.—Common summer resident; found about all creeks and bodies of water in the open country, but usually nesting back from the water in cultivated fields or bushy pastures.

6. **Oxyechus vociferus.** KILLDEER.—The same remarks apply to this species though it is usually more noticeable than the Spotted Sandpiper. Nests almost entirely back from the water in the cultivated fields.

7. **Bonasa umbellus umbellus.** RUFFED GROUSE.—An abundant permanent resident throughout the mountains and also found commonly in the Barrens. During late April, the drumming may be heard throughout the day in these localities and the birds are frequently flushed. Though the birds are abundant, but two nests have come to my notice. One of these was found by a student while trout fishing near Pine Grove and held ten hatching eggs on May 23, 1910. The other was found by Mr. David Harrower and held six fresh eggs in June, 1911.

8. **Meleagris gallopavo silvestris.** WILD TURKEY.—Regular and tolerably common permanent resident, though rarely seen. I have observed Wild Turkeys or their tracks in the Barrens, near Stone Valley and along Mount Nittany, and the birds breed in all these localities. They are reputed to be fairly common near Buffalo run in Patton township and the farmers tell me that they frequently see the young in company with the parent feeding in the open fields near the woods.

9. **Zenaidura macroura carolinensis.** MOURNING DOVE.—Quite

common summer resident throughout the region and nesting in all localities except the deep woods. Found quite commonly about old estates in pines, in old orchards or in open groves of pine in the mountains. Has been found breeding from the ground up to twenty-five feet, usually at the base of limbs but sometimes in hollows. Eggs have been found as early as April 17, 1910, and as late as July 23, 1911, in the latter instance they were far incubated.

10. **Cathartes aura septentrionalis.** TURKEY VULTURE.—The Turkey Vulture may usually be seen on any day throughout the summer, and undoubtedly breeds at certain localities in the mountains though no nests have been found. During late June the author has observed them frequently about Bald Knob and sailing over the Tussey Valley and has sought vainly for their nests in the rock ledges at Shingletown Gap.

11. **Accipiter cooperi.** COOPER'S HAWK.—The most common breeder of our larger hawks. Nests regularly either in the larger woodlots through the more open country or in the denser mountain forests. The following occupied nests have been found.

May 4, 1909. Four slightly incubated eggs.

April 28, 1910. Five fresh eggs.

May 14, 1910. Four incubated eggs.

May 2, 1912. Three fresh eggs.

Two nests were located while in the process of building in 1911, but circumstances prevented later investigations.

12. **Buteo borealis borealis.** RED-TAILED HAWK.—An uncommon permanent resident. The author has not found the nest of this bird, though he has several times observed it in the breeding season. Mr. Douglass Spencer informs me that he observed several of these birds in early April, 1911, near Fillmore.

13. **Buteo platypterus.** BROAD-WINGED HAWK.—A regular but rather scarce summer resident; its range apparently limited to the vicinity of the mountain streams in the gaps and ravines. The Broad-winged Hawk has been observed in the breeding season in Stone Valley, Shingletown Gap, in Bear Meadows, and near Pine Grove Mills. The following nests have been found.

May 8, 1910. Two fresh eggs.

July 1, 1911. One downy young hawk probably ten days old.

Both these nests were on the banks of mountain streams, the first in a hemlock and the second in a dead yellow birch.

14. **Falco sparverius sparverius.** SPARROW HAWK.—Common summer resident throughout the open country, nesting either in solitary trees or in small woodlots. The Sparrow Hawk always nests in a hollow, but the size may vary from a small Flicker's hole to an enormous natural cavity, two feet in diameter. A number of nests have been found — the earliest with five half-incubated eggs on April 26, 1910, near Lemont and the latest with four slightly incubated eggs on May 27, 1910, near State College.

15. **Otus asio asio.** SCREECH OWL.—Common permanent resident throughout the open country. In spite of the fact that the author has found but one nest, he has often seen the young birds still in the down and at least two pairs breed on the College campus. Screech Owls here show a marked preference for holes in old orchard trees and in large elms along the creeks. The gray form is more prevalent here. A nest with three eggs found April 13, 1912.

16. **Bubo virginianus virginianus.** GREAT HORNED OWL.—A rare but regular permanent resident apparently restricted to the wilder mountainous regions. It has been noticed in the vicinity of Bald Knob, Bear Meadows and Stone Valley. In spite of diligent search, no nests have been found, but the birds have been seen Feb. 25, 1910, during their breeding season near Monroe Furnace.

17. **Coccyzus americanus americanus.** YELLOW-BILLED CUCKOO.—Regular, but rather uncommon summer resident, most frequently found in second growth, or damp thickets in the more open country where it breeds.

18. **Coccyzus erythrophthalmus.** BLACK-BILLED CUCKOO.—Scarce summer resident, the more frequent form in the thickets and second growth of the mountainous regions in the vicinity of Bald Knob, Bear Meadows and Stone Valley.

19. **Ceryle alcyon alcyon.** BELTED KINGFISHER.—Regular and fairly common summer resident in suitable localities throughout the more open country. Rarer along the mountain streams. The Kingfisher builds either in the banks of streams or less commonly in quarries or sand banks remote from water. The following nests have been found.

May 22, 1909. One fresh egg.

May 11, 1910. Six fresh eggs.

May 18, 1912. Seven incubated eggs.

20. **Dryobates villosus villosus.** HAIRY WOODPECKER.—Scarce permanent resident in the larger bodies of timber; most frequently found along the base of the mountains. It has been noted throughout the breeding season near Pine Grove Mills, in Stone Valley and along the base of Mount Nittany, near McBride's Gap and at Waddles.

21. **Dryobates pubescens medianus.** DOWNY WOODPECKER.—A very common permanent resident in the open country, but its nests are difficult to find. During the breeding season it is most frequently observed in woodlots, groups of trees near streams, or in orchards. In the mountains it is uncommon. We have noted but two nests. The first was found May 30, 1909, and contained four half fledged young, while the second held a completed set of 5 eggs on May 19, 1912.

22. **Phloeotomus pileatus abieticola.** NORTHERN PILEATED WOODPECKER.—A scarce permanent resident now restricted to the mountainous districts and the wilder portions of the barrens. The extreme shyness of these birds renders observation most difficult. The Pileated Woodpecker occurs regularly throughout the breeding season in the wild, almost im-

penetrable swamps and slashings of Stone Valley and Bear Meadows. One nest with two fresh eggs was found May 2, 1912.

23. *Melanerpes erythrocephalus*. RED-HEADED WOODPECKER.— An abundant summer resident throughout the open valleys, nesting in practically every woodlot and orchard about State College and the adjoining towns and sometimes raising two broods in a season. From a number of nests examined, the earliest with six fresh eggs was found May 26, 1910, and the latest with four fresh eggs on July 10, 1911.

24. *Colaptes auratus luteus*. NORTHERN FLICKER.— An abundant summer resident throughout the open valleys nesting most frequently in orchards and woodlots. Less common in the more open mountain forests. Earliest nest examined held eleven eggs on May 9, 1910; latest nest June 7, 1910, with seven fresh eggs. The average date when sets are completed is May 12.

25. *Antrostomus vociferus vociferus*. WHIP-POOR-WILL.— Quite common summer resident throughout the mountain forests. It apparently does not breed in the more open country.

26. *Chordeiles virginianus virginianus*. NIGHTHAWK.— Rare summer resident in the open country. Found about old fields where there is an outcrop of flat stones.

27. *Chaetura pelagica*. CHIMNEY SWIFT.— The Swift is an abundant summer resident throughout the open country about houses and, in fact, wherever suitable chimneys are found where it may nest. Large numbers breed in the capped chimneys of the chemistry building on the College campus.

28. *Archilochus colubris*. RUBY-THROATED HUMMINGBIRD.— Regular but rather scarce summer resident in the open valleys as well as along the borders of the mountain forests. In the open country it breeds about estates, in woodlands and in orchards. I have found but one nest, which contained two fresh eggs on June 7, 1909. This was built in the College orchard.

29. *Tyrannus tyrannus*. KINGBIRD.— Abundant summer resident of the open or cleared valleys, where it nests in nearly every fruit orchard. The average time for complete sets of eggs is about June 6.

30. *Myiarchus crinitus*. CRESTED FLYCATCHER.— Very common summer resident throughout the valleys and open woodland, nesting most abundantly in old apple orchards. The usual time for complete sets of eggs is about June 5.

31. *Sayornis phoebe*. PHOEBE.— Very abundant summer resident, nesting indiscriminately about out-houses, barns, ruined buildings, under bridges or on the sides of rock ledges in the mountains. Near Pine Grove in an old ore furnace, a nest of Phoebe was found with six distinct stories. Average time for first sets April 28.

32. *Myiochanes virens*. WOOD PEWEE.— Abundant summer resident, nesting usually in open woods, orchards or about estates. But three nests have come to my notice.

No. 1. June 20, 1911. Two fresh eggs.

No. 2. June 29, 1911. Two fresh eggs.

No. 3. August 7, 1911. Two half fledged young.

33. **Empidonax virescens**. ACADIAN FLYCATCHER.—Rare summer resident along the mountain streams. Have observed it several times in 1910 in Huntington County where two old nests were found. In July, 1911, a female with two young was seen between First and Second mountains.

34. **Empidonax minimus**. LEAST FLYCATCHER.—Rare summer resident in small groves or fruit orchards. Usually about one pair is seen throughout the breeding season but no nests have been found.

35. **Otocoris alpestris praticola**. PRAIRIE HORNED LARK.—Summer resident in the open fields of the valleys, varying in abundance. In 1909 and 1912 they were fairly common, while in 1910 and 1911 they were very rare. No nests have been found though the birds have been observed in every month of the year.

36. **Cyanocitta cristata cristata**. BLUE JAY.—Regular but scarce summer resident in the wooded areas, most frequently found along the mountain trails. A nest with five eggs was found in Stone Valley, May 8, 1910.

37. **Corvus corax principalis**. NORTHERN RAVEN.—Rare but regular resident in the wilder sections, nesting in ledges of rocks. Usually has complete sets by March 5. (Cf. Cassinia, 1910, p. 11.)

38. **Corvus brachyrhynchos brachyrhynchos**. CROW.—Very abundant breeder, being especially abundant in the medium sized woodlots in the valleys. Incubation begins about April 10, the eggs numbering four or five.

39. **Molothrus ater ater**. COWBIRD.—Breeds regularly but infrequently throughout the open valleys, laying from May 20 to June 5. In this region its eggs have been found in the nests of the Chipping Sparrow, Red-eyed Vireo, White-breasted Nuthatch, Phoebe and Bluebird.

40. **Agelaius phoeniceus phoeniceus**. RED-WINGED BLACKBIRD.—Breeds abundantly throughout the open country wherever there are any small swamps, several pairs often nesting close together. The complete set of three or four eggs is laid from May 20 to May 25.

41. **Sturnella magna magna**. MEADOWLARK.—Abundant summer resident in grassy fields through the valleys, but its nests are hard to find. Nesting begins the first week in May and two broods are reared.

42. **Icterus spurius**. ORCHARD ORIOLE.—Scarce but regular summer resident in orchards and about estates. I have seen two nests and both Mr. White and Mr. Harrower have found nests with young in late June.

43. **Icterus gabula**. BALTIMORE ORIOLE.—Breeds abundantly in orchards, about estates and especially in elms along streams. Here four eggs are the normal set, while three and five are found less frequently. The eggs are laid about May 25.

44. **Quiscalus quiscula quiscula**. PURPLE GRACKLE.—

45. **Quiscalus quiscula æneus**. BRONZED GRACKLE.— Both forms of the Grackle have been taken here during the nesting season, but the most common form is intermediate between the two. They nest most commonly in coniferous trees about estates and lay their four or five eggs about May 5.

46. **Astragalinus tristis tristis**. GOLDFINCH.— Breeds abundantly throughout the open valleys, in orchards, about estates and in shade trees as well as in patches of second growth. In 1911 I found sets of from four to six eggs, from July 23 to August 11.

47. **Poocetes gramineus gramineus**. VESPER SPARROW.— Breeds abundantly in the open fields, showing a preference for high dry ground and raises two broods. In 1911 I took a set of four eggs on July 24.

48. **Passerculus sandwichensis savanna**. SAVANNAH SPARROW.— Breeds rarely in the open fields of the valleys. My only record is a nest and two far incubated eggs which I collected on July 20, 1911.

49. **Ammodramus savannarum australis**. GRASSHOPPER SPARROW.— Breeds abundantly in the grassy fields and meadows throughout the valleys, but I have not found any occupied nests. On July 20, 1911, a deserted nest with one fresh egg was found.

50. **Spizella passerina passerina**. CHIPPING SPARROW.— Breeds abundantly throughout the valleys, in orchards and shade trees as well as in vines about houses, and raises two broods. The first set of three or four eggs is deposited about May 10.

51. **Spizella pusilla pusilla**. FIELD SPARROW.— Abundant, nesting in old weedy pastures and fields, where there are patches of briars or bushes. Raises two broods and the first set of three or four eggs is laid about May 5 — the second set in early July.

52. **Melospiza melodia melodia**. SONG SPARROW.— Breeds abundantly throughout the open valleys. Two or three broods are reared and the four or five eggs may be found from May 1 until late in August.

53. **Pipilo erythrophthalmus erythrophthalmus**. TOWHEE.— Nests abundantly in second growth in the mountains and about clearings and less commonly in the valleys. On July 19, 1911, a nest with three half incubated eggs was located.

54. **Passerina cyanea**. INDIGO BUNTING.— Regular and fairly common breeder along the border of woods and in second growth and clearings in the mountains, raising two broods. But two nests have been found.

August 17, 1911. Four newly hatched young.

August 18, 1911. Three slightly incubated eggs.

55. **Piranga erythromelas**. SCARLET TANAGER.— Rare breeder and confined mostly to the mountains. It has been noted throughout the summer in Stone Valley but no nests have been found.

56. **Progne subis subis**. PURPLE MARTIN.— Breeds rarely and irregularly. In the summer of 1908 two pairs bred at State College, and two pairs bred in 1912.

57. **Petrochelidon lunifrons lunifrons**. CLIFF SWALLOW.— Regu-

lar but not very common summer resident throughout the cultivated sections.

58. *Hirundo erythrogastra*. BARN SWALLOW.—Very abundant breeder throughout the valleys, nesting in barns or under bridges. Usually completes its sets of four or five eggs by May 10 or May 15.

59. *Stelgidopteryx serripennis*. ROUGH-WINGED SWALLOW.—Regular but not very common breeder along the open streams. Four nests have been located at the following dates.

June 11, 1909. Six newly hatched young, in stones under bridge.

June 11, 1909. Five fresh eggs in Kingfisher's hole.

May 30, 1910. Six fresh eggs in Kingfisher's hole.

May 18, 1912. Five fresh-eggs in Kingfisher's hole.

60. *Bombycilla cedrorum*. CEDAR WAXWING.—Common summer resident nesting in orchards and shade trees. Three occupied nests have been located.

June 20, 1911. Three fresh eggs.

June 29, 1911. Three fresh eggs.

August 17, 1911. Four slightly incubated eggs.

61. *Vireosylva olivacea*. RED-EYED VIREO.—Abundant summer resident in open woodland and about estates as well as in the dense woods of the mountains. Nesting begins about the first week in June.

62. *Vireosylva gilva gilva*. WARBLING VIREO.—Rare but regular summer resident, apparently confined to shade trees along the town streets. Have observed them in Boalsburg and State College throughout the breeding season.

63. *Lanivireo flavifrons*. YELLOW-THROATED VIREO.—Scarce but regular summer resident in open woods, at least two pairs breeding regularly on the College campus, where the young birds have been observed in late June. But one nest has been located which contained four fresh eggs on June 2, 1910.

64. *Mniotilta varia*. BLACK AND WHITE WARBLER.—Regular and fairly common summer resident throughout the mountain forests, where its song is one of the features. But one nest has been found, on May 18, 1910, which held five fresh eggs. The locality was Stone Valley.

65. *Vermivora chrysoptera*. GOLDEN-WINGED WARBLER.—Rare summer resident. One pair was observed near Monroe Furnace on June 3, 1910.

66. *Dendroica aestiva aestiva*. YELLOW WARBLER.—Very common summer resident throughout the open valleys, nesting most frequently in orchards.

67. *Dendroica caerulescens caerulescens*. BLACK-THROATED BLUE WARBLER.—Rare summer resident in the colder laurel swamps of the mountains. Has been observed at Stone Valley and Bear Meadows.

68. *Dendroica magnolia*. MAGNOLIA WARBLER.—Fairly common breeder in the hemlock groves of the mountains, being found most frequently at the gaps and along streams.

69. **Dendroica pensylvanica.** CHESTNUT-SIDED WARBLER.— Quite a common breeder throughout, nesting in second growth either in the valleys or in clearings on the mountains. Mr. Harrower has taken several sets of eggs about June 1, near State College.

70. **Dendroica fusca.** BLACKBURNIAN WARBLER.— Scarce summer resident in the more extensive hemlock patches in the mountains.

71. **Dendroica virens.** BLACK-THROATED GREEN WARBLER.— Abundant summer resident wherever patches of coniferous timber occur in the mountains. It is especially abundant at Stone Valley and Bear Meadows and Mr. Harrower found one nest near Bald Knob in late June, 1911.

72. **Dendroica vigorsii.** PINE WARBLER.— Fairly common summer resident in patches of pitch, Table Mountain and white pine in the mountains and valleys.

73. **Seiurus aurocapillus.** OVEN-BIRD.— Abundant breeder wherever there is any woodland, either in the mountains or the valleys.

74. **Seiurus motacilla.** LOUISIANA WATER-THRUSH.— Abundant breeder at suitable locations in the mountains, being especially common in the bottom land of Laurel Run, Stone Valley. Here I have taken several sets of three and four eggs and Mr. Harrower has taken a set of five. My earliest date is for four eggs, taken May 14, 1910, and incubated one week.

75. **Geothlypis trichas trichas.** MARYLAND YELLOW-THROAT.— Common summer resident in swampy clearings and damp undergrowth throughout the country. It is not found in the heavy timber.

76. **Icteria virens virens.** YELLOW-BREASTED CHAT.— Rare summer resident in clearings and second growth thickets. One set of four incubated eggs was collected on June 3, 1910, in Stone Valley.

77. **Wilsonia citrina.** HOODED WARBLER.— Abundant summer resident in the thickets of rhododendron and laurel throughout the mountain bottomlands. It is very common in Stone Valley and breeds as near to State College as Shingletown Gap where several broods of young have been observed.

78. **Wilsonia canadensis.** CANADA WARBLER.— Quite common breeder in the same localities as the Hooded Warbler inhabits. July 1, 1911, I found a nest of this bird near Bald Knob with four full fledged young and at the same place, June 7, 1912, took a set of 5 far incubated eggs.

79. **Dumetella carolinensis.** CATBIRD.— Common summer resident throughout the open country, in thickets and second growth.

May 22, 1909. Four fresh eggs.

80. **Toxostoma rufum rufum.** BROWN THRASHER.— Rather scarce breeder, inhabiting the same localities as the Catbird.

81. **Troglodytes ædon ædon.** HOUSE WREN.— An abundant summer resident throughout the valleys, nesting most frequently in old orchards or about houses. The usual time for complete sets is about June 1.

82. **Sitta carolinensis carolinensis.** WHITE-BREASTED NUTHATCH.— An abundant breeder in nearly all the forested portions and woodlots.

But two nests have been taken; one May 16, 1910, which held six fresh eggs and one of the Cowbird; and one May 14, 1912, with 7 fresh eggs.

83. **Bæolophus bicolor**. TUFTED TITMOUSE.—Rare summer resident in the woods along the base of the mountains.

84. **Penthestes atricapillus atricapillus**. BLACK-CAPPED CHICKADEE.—Scarce summer resident along the mountain streams. On May 8, 1910, a nest was found in Stone Valley containing seven fresh eggs.

85. **Hylocichla mustelina**. WOOD THRUSH.—Rare breeder and apparently limited to the open, damp bottomlands of the mountains.

86. **Hylocichla fuscescens fuscescens**. VEERY.—Rare breeder in the bottomlands of the mountains. Has been observed twice in the breeding season in Stone Valley.

87. **Planesticus migratorius migratorius**. ROBIN.—Very abundant breeder in the open country, nesting in orchards and about lawns and estates. Sets are usually completed about May 4, and two broods are raised.

88. **Sialia sialis sialis**. BLUEBIRD.—Regular but not very common breeder in the open valleys, nesting most frequently in old orchards. Sets are usually complete about April 20 and two broods are raised.

Hypothetical List.

89. **Botaurus lentiginosus**. BITTERN.—Mr. Spencer observed one specimen in June, 1908, along Laurel Run and Mr. White took one of a pair from the Center Furnace Swamp on May 8, 1909. It probably will be found to be a rare breeder.

90. **Ardea herodias herodias**. GREAT BLUE HERON.—Has been observed several times in April, and may breed in some sections of the mountains.

91. **Colinus virginianus virginianus**. BOB-WHITE.—It has been reported to breed rarely at Boalsburg and Pine Grove, but as yet, I have no corroborative evidence. Several were shot near Pine Grove in October, 1911. One was singing June 24, 1912, at State College.

92. **Circus hudsonius**. MARSH HAWK.—During July, 1911, I saw a bird of this species nearly every day, and again observed one May 6, 1912. It may breed rarely in the swampy meadows.

93. **Accipiter velox**. SHARP-SHINNED HAWK.—Probably breeds rarely in suitable places in the mountains, but as yet no evidence has been procured.

94. **Buteo lineatus lineatus**. RED-SHOULDERED HAWK.—The same remarks apply to this species.

95. **Asio wilsonianus**. LONG-EARED OWL.—This Owl has been taken here in the fall and winter months and may breed rarely.

96. **Strix varia varia**. BARRED OWL.—Probably breeds rarely in suitable localities. Has been observed several times in March.

97. **Dolichonyx oryzivorus**. BOBOLINK.—Mr. Musgrave records a pair observed near Boalsburg by Mr. Todd in June. I have no other records.

98. **Junco hyemalis hyemalis**. SLATE-COLORED JUNCO.—My latest spring record is May 10, 1910. May breed rarely in the mountains.

99. **Melospiza georgiana**. SWAMP SPARROW.—Probably nests rarely at the Center Furnace Swamp but no conclusive evidence has been obtained.

100. **Cardinalis cardinalis cardinalis**. CARDINAL.—The Cardinal may breed in Stone Valley as it has been seen there in May.

101. **Zamelodia ludoviciana**. ROSE-BREASTED GROSBEAK.—This bird occurs in Stone Valley during the migrations and may breed there.

102. **Iridoprocne bicolor**. TREE SWALLOW.—Mr. Musgrave records the Tree Swallow as a common summer resident, but so far, no supporting evidence has been obtained.

103. **Lanius ludovicianus migrans**. MIGRANT SHRIKE.—There is a possibility that this Shrike may breed here and watch should be kept for it.

104. **Compothlypis americana usneæ**. PARULA WARBLER.—Probably breeds rarely at Bear Meadows, as Mr. Musgrave records them from that locality in June.

105. **Setophaga ruticilla**. REDSTART.—May breed rarely but no conclusive evidence has been obtained.

106. **Thryomanes bewicki bewicki**. BEWICK'S WREN.—One was observed near Shingletown, April 13, 1910. It may breed rarely.

107. **Cistothorus stellaris**. SHORT-BILLED MARSH WREN.—Mr. White and myself observed Marsh Wrens May 30, 1909, at Center Furnace which we referred to this species. It should be looked for in our swampy meadows.